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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte FELIX HELFRICH, THOMAS SÜTTHOFF, and
JOVAN ULBRICH-GASPAREVIC¹

Appeal 2014-006706
Application 12/675,238
Technology Center 3600

Before WILLIAM A. CAPP, BRANDON J. WARNER, and
AMANDA F. WIEKER, *Administrative Patent Judges*.

WIEKER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Felix Helfrich et al. (“Appellants”) appeal under 35 U.S.C. § 134(a) from the Examiner’s May 1, 2013 final rejection of claims 1–8, 10, and 11.² We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We AFFIRM.

¹ According to Appellants, the Real Party in Interest is Airbus Operations GmbH. Appeal Br. 2 (filed Nov. 18, 2013).

² Claim 9 is cancelled. *Id.* at 24 (Claims App.).

CLAIMED SUBJECT MATTER

The invention “relates to work and accommodation rooms for pilots in airplanes.” Spec. 1. Claim 1 is illustrative of the subject matter on appeal, and recites:

1. *A secured cockpit with an integrated flight crew rest compartment with an accommodation area* for accommodating at least one pilot of an aircraft, wherein the cockpit comprises:

a work area comprising equipment necessary for controlling and piloting the aircraft;

wherein the accommodation area of the flight crew rest compartment comprises a rest area;

wherein the cockpit and the flight crew rest compartment are separated from a passenger area of the aircraft by at least one security partition;

wherein the at least one partition encompasses at least one of the following properties: bulletproof, entry-proof, fireproof, access-proof, and explosion proof;

wherein the work area is arranged at a first vertical height;

wherein the rest area comprises at least one sleeping device;

wherein the sleeping device is arranged at a second vertical height of the aircraft;

wherein the first vertical height is below the second vertical height; and

wherein the at least one security partition is adapted to the contour of the flight crew rest compartment of the cockpit such that the cockpit and the flight crew rest compartment are at least one of the following: bulletproof, entry-proof, fireproof, access-proof, and explosion proof.

Appeal Br. 23 (Claims App.) (emphasis added).

REJECTIONS

The claims stand rejected as follows:

- I. Claims 1–3, 5, 7, 8, 10, and 11 under 35 U.S.C. § 103(a) as unpatentable over Guering,³ Seiersen,⁴ and Cloud.⁵
- II. Claim 4 under 35 U.S.C. § 103(a) as unpatentable over Guering, Seiersen, Cloud, and Gott.⁶
- III. Claim 6 under 35 U.S.C. § 103(a) as unpatentable over Guering, Seiersen, Cloud, and Takeshima.⁷

ANALYSIS

Obviousness over Guering, Seiersen, and Cloud – Claims 1–3, 5, 7, 8, 10, 11

Appellants argue claims 1–3, 5, 7, 8, 10, and 11 as a group. Appeal Br. 7–18. We select claim 1 as representative, and claims 2, 3, 5, 7, 8, 10, and 11 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(iv).

The Examiner finds that Guering discloses a cockpit substantially as claimed, including work area 8 (with equipment for controlling and piloting the aircraft) and accommodation area 14 (with sleeping device 23). Final Act. 2–3. The Examiner finds that Seiersen discloses “a work and accommodation area (100) where the first vertical height of the work area (112) is below the second vertical height of the sleeping device (134).” *Id.* at 3. The Examiner also finds that Cloud discloses secured cockpit 12 with

³ US 7,156,344 B1, iss. Jan. 2, 2007.

⁴ US 2007/0125909 A1, pub. June 7, 2007.

⁵ US 2003/0189131 A1, pub. Oct. 9, 2003.

⁶ US 1,731,531, iss. Oct. 15, 1929.

⁷ US 6,676,079, iss. Jan. 13, 2004.

security partition 6, 10, which is at least bulletproof and entry-proof, and is adapted to the contour of the cockpit, such that the cockpit is also bulletproof and entry-proof. *Id.* The Examiner concludes that it would have been obvious “to adapt the teachings of Seiersen and Cloud to Guering to form a secured cockpit with an integrated accommodation area having a work area below a sleeping device . . . [and] where the module is separated from the passenger cabin by a partition that is bulletproof and entry-proof.” *Id.* The Examiner concludes that such a modification provides a “rest module in communication with the flight deck that has a highly space efficient structure” and “reduce[s] or substantially eliminate[s] the possibility that a person gains unauthorized access to the flight deck to gain control of the aircraft.” *Id.*

Appellants have not demonstrated error in the Examiner’s rejection. First, we are unpersuaded by Appellants’ argument that Guering does not disclose a “cockpit with an integrated flight crew rest compartment,” as recited in claim 1, because “a cabin 14 and a flight deck 2A separated by a floor 2A and accessible through only one opening 12, as in *Guering*, cannot be considered as ‘integrated[.]’ . . . There is neither ‘structural integration’ nor ‘functional integration’ between the flight deck 8 and the private cabin 14.” Appeal Br. 9; *see also id.* at 8–11; Reply Br. 3–4 (filed May 23, 2014).

During examination, “claims . . . are to be given their broadest reasonable interpretation consistent with the specification, [] and . . . claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art.” *In re Bond*, 910 F.2d 831,

833 (Fed. Cir. 1990) (internal citation and quotations omitted). Therefore, the words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification. *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989). An appropriate definition of “integrated,” in the context of the claim language, is “form[ed], coordinate[d], or blend[ed] into a functioning or unified whole.”⁸

Although Appellants argue that Guering’s rest area and cockpit are not integrated, Appellants do not provide evidence to support a different construction of this term. Indeed, Appellants’ reference to structural and functional integration is not accompanied by any reference to the Specification or other evidence. *See* Appeal Br. 9. Further, Appellants’ Specification does not define the term and, instead, broadly describes the claimed integration as “mak[ing] it possible to preclude any contact between the passengers and cockpit crew” and “yield[ing] a protecting sleeping area for the crew inside the former cockpit.” Spec. 4, 16–17; Appeal Br. 10–11. Therefore, Appellants’ Specification is not inconsistent with the plain meaning of the term.

So construed, Guering’s rest compartment 14 is integrated with cockpit 8. Guering explains that flight deck 8 and private cabin 14 are “in communication . . . through said opening 12 made in the floor 2A.” Guering, 3:5–8; *see also id.* at 2:64–3:1 (describing a “communication passage between the flight deck 8 and the storage compartment 11”),

⁸ Webster’s Ninth New Collegiate Dictionary 628 (1985) (“integrate”); *see also* Merriam-Webster Online Dictionary, <https://www.merriam-webster.com/dictionary/integrate> (last visited Jan. 26, 2017) (same).

Figs. 1–2 (depicting opening 12 as it relates to flight deck 8 and cabin 14). Such communication between the two spaces forms a functioning or unified whole, and achieves Appellants’ stated purpose of precluding contact between the passengers and the cockpit crew, such that the cockpit crew has a protected sleeping area. Indeed, Guering specifies that “pilots may pass directly from the flight deck into the private cabin, and vice versa, without passing through the passenger cabin,” which “isolate[s] all the flight crews from the rest of the aircraft by geographically grouping the pilots’ flight function and rest function together.” *Id.* at 1:31–36.

Appellants also argue that Guering’s cockpit and rest cabin are not “separated from a passenger area . . . by at least one security partition,” because “[t]here is no real connection between the private cabin 14 and the passenger cabin 10, and therefore, partitions 6, 7 cannot be considered as separating the private cabin 14 from the passenger cabin 10.” Appeal Br. 9–11. We are unpersuaded by Appellants’ argument. As seen in Guering’s Figures 1–2, rest cabin 14 is only accessible from passenger area 10 by passing through partitions 6, 7 and through opening 12. Therefore, rest cabin 14 is separated from the passenger area as claimed.

We are unpersuaded by Appellants’ additional argument that the Examiner’s combination “directly contradicts” Guering’s teachings. Appeal Br. 11–13; Reply Br. 5–7. Although Guering describes disadvantages associated with placing a rest area and sleeping device “behind the cockpit,” this is not the modification proposed by the Examiner. *See* Guering, 1:10–40; Final Act. 3 (modifying Guering to place “a work area *below* a sleeping device,” but not placing a sleeping device *behind* the work area, as

Appellants argue); Ans. 2–4. Appellants also argue that “moving the private cabin 14 . . . behind the cockpit . . . would in fact be an inefficient use of space,” in contrast to the Examiner’s stated rationale of improving space efficiency. Appeal Br. 12. However, this argument is not well taken because, again, it misstates the Examiner’s modification. Final Act. 3; Ans. 2–4. Appellants have not presented any persuasive evidence or technical reasoning to suggest that moving the rest area with a sleeping device *above* a work area, as the Examiner actually proposes, would present the same space inefficiencies. Further, the Examiner’s stated rationale of improving space efficiency is supported by the evidence of record. *See, e.g.*, Seiersen ¶ 7 (discussing space efficiency), ¶ 31 (disclosing space efficiencies associated with placing sleeping devices at a high vertical position). Ans. 2–3.

We are also unpersuaded by Appellants’ arguments that the Examiner overlooks the difference between pilot and crew rest areas, that Seiersen’s crew rest area is not integrated with a cockpit, and that Seiersen’s crew rest area is associated with an “entrance module,” not a work area with equipment for controlling the aircraft. Appeal Br. 13–14; Reply Br. 4–5. Guering discloses a pilot rest area 14 that is integrated with flight deck 8 (“work area”), wherein flight deck 8 includes equipment for controlling the aircraft. Final Act. 2–3; Guering, 1:31–36, 2:97–3:8, Fig. 1. Seiersen is relied upon merely to alter the relative positions of flight deck 8 and rest area 14, such that the work area is below the rest area. Final Act. 3; Ans. 2–3. Therefore, it is immaterial that Seiersen’s rest area is intended for use by crew, is not integrated with the cockpit, or is placed above an

“entrance module” instead of a work area. Seiersen discloses advantages to placing the rest area at an increased vertical height, e.g., space efficiencies (Seiersen ¶ 31), which supports the Examiner’s conclusion that a person of ordinary skill in the art would have found it obvious to modify Guering to place rest area 14 at a vertical height above work area 8, as claimed.

We are unpersuaded by Appellants’ argument that the combination of references does not render obvious a bulletproof security partition that separates the cockpit and rest compartment from a passenger area, as claimed, because Cloud does not specify that wall 6 possesses the same ballistic resistant properties as door 10. Appeal Br. 15–18; Reply Br. 7. Although Cloud does not specify expressly the material of wall 6, in which door 10 is located, the Examiner reasons that “extending the bulletproof nature and materials of the flight deck door (10) of Cloud to encompass the entire security partition including the door (10) and the flight deck wall (6) would simply be a matter of design choice,” and would “reduce or substantially eliminate the possibility that a person gains unauthorized access to the flight deck to gain control of the aircraft.” Final Act. 9. The Examiner also concludes that it is “within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.” *Id.* (citing *In re Leshin*, 277 F.2d 197 (CCPA 1960)); *see also* Ans. 4–5.

We agree with the Examiner’s conclusion. Cloud discloses that cockpit 12 is secured from a passenger area by bulletproof door 10, which is located within wall 6. Cloud ¶ 18, Fig. 1. Cloud specifies that a bulletproof door helps to prevent an intruder from accessing the cockpit. *Id.* ¶¶ 5, 19.

Although Cloud does not specify expressly that the wall in which the door is located is also bulletproof, we agree with the Examiner's conclusion that it would have been obvious to make wall 6 bulletproof as well, to further reduce the possibility that a person gains access to the flight deck or otherwise harms the flight crew. *Id.*; Final Act. 9. Increasing the bulletproof nature of the barrier between the cockpit and passenger area further serves Cloud's explicit purpose of preventing unauthorized access to the cockpit. Cloud ¶ 5. Indeed, without extending the bulletproof properties to wall 6, an intruder could simply discharge a firearm immediately adjacent door 10, at wall 6, to access the cabin, rendering the bulletproof door entirely ineffective.

For the foregoing reasons, we are not persuaded of error in the Examiner's rejection of claim 1. Accordingly, we affirm the rejection of claim 1, as well as claims 2, 3, 5, 7, 8, 10, and 11.

Obviousness over Guering, Seiersen, Cloud, and Gott – Claim 4

Appellants contend that Gott does not cure the deficiencies in the Examiner's combination of Guering, Seiersen, and Cloud. Appeal Br. 18–19. However, as discussed above, we are not persuaded that the Examiner's rejection in light of those references is deficient. Accordingly, Appellants have failed to persuade us of error in the rejection of claim 4, and we affirm that rejection.

Obviousness over Guering, Seiersen, Cloud, and Takeshima – Claim 6

Appellants contend that Takeshima does not cure the deficiencies in the Examiner's combination of Guering, Seiersen, and Cloud. Appeal Br. 19–20. However, as discussed above, we are not persuaded that the

Examiner's rejection in light of those references is deficient. Accordingly, Appellants have failed to persuade us of error in the rejection of claim 6, and we affirm that rejection.

DECISION

The rejections of claims 1–8, 10, and 11 are AFFIRMED.

AFFIRMED